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Product datasheet for RG229131

MGMT (NM_002412) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGMT (NM_002412) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MGMT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG229131 representing NM_002412
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGGGACAGCCCGCGCCCCTAGAACGCTTTGCGTCCCGACGCCCGCAGGTCCTCGCGGTGCGCACCG
TTTGCGACTTGGTACTTGGAAAAATGGACAAGGATTGTGAAATGAAACGCACCACACTGGACAGCCCTTT
GGGGAAGCTGGAGCTGTCTGGTTGTGAGCAGGGTCTGCACGAAATAAAGCTCCTGGGCAAGGGGACGTCT
GCAGCTGATGCCGTGGAGGTCCCAGCCCCCGCTGCGGTTCTCGGAGGTCCGGAGCCCCTGATGCAGTGCA
CAGCCTGGCTGAATGCCTATTTCCACCAGCCCGAGGCTATCGAAGAGTTCCCCGTGCCGGCTCTTCACCA
TCCCGTTTTCCAGCAAGAGTCGTTCACCAGACAGGTGTTATGGAAGCTGCTGAAGGTTGTGAAATTCGGA
GAAGTGATTTCTTACCAGCAATTAGCAGCCCTGGCAGGCAACCCCAAAGCCGCGCGAGCAGTGGGAGGAG
CAATGAGAGGCAATCCTGTCCCCATCCTCATCCCGTGCCACAGAGTGGTCTGCAGCAGCGGAGCCGTGGG
CAACTACTCCGGAGGACTGGCCGTGAAGGAATGGCTTCTGGCCCATGAAGGCCACCGGTTGGGGAAGCCA
GGCTTGGGAGGGAGCTCAGGTCTGGCAGGGGCCTGGCTCAAGGGAGCGGGAGCTACCTCGGGCTCCCCGC
CTGCTGGCCGAAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG229131 representing NM_002412
Red=Cloning site Green=Tags(s)

MLGQPAPLERFASRRPQVLAVRTVCDLVLGKMDKDCEMKRTTLDSPLGKLELSGCEQGLHEIKLLGKGTS
AADAVEVPAPAAVLGGPEPLMQCTAWLNAYFHQPEAIEEFPVPALHHPVFQQESFTRQVLWKLLKVVKFG
EVISYQQLAALAGNPKAARAVGGAMRGNPVPILIPCHRVVCSSGAVGNYSGGLAVKEWLLAHEGHRLGKP
GLGGSSGLAGAWLKGAGATSGSPPAGRN

TRTRPLE - GFP Tag - V

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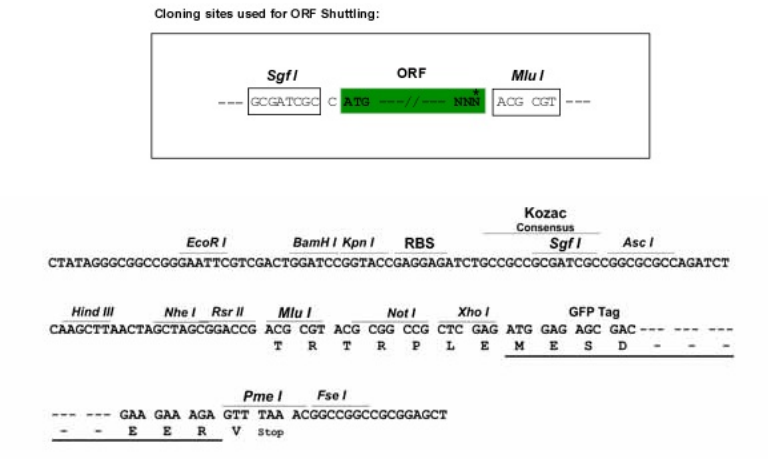
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002412

ORF Size: 714 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

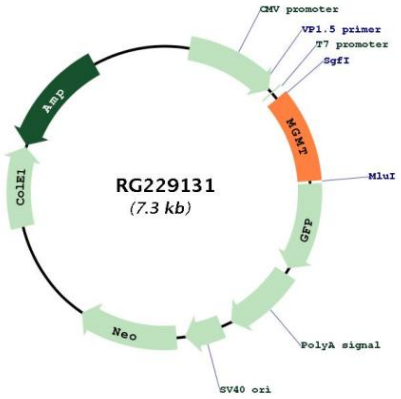
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq:	NM_002412.4
RefSeq Size:	1265 bp
RefSeq ORF:	624 bp
Locus ID:	4255
UniProt ID:	P16455
Cytogenetics:	10q26.3
Domains:	Methyltransf_1
Protein Families:	Druggable Genome
Gene Summary:	Alkylating agents are potent carcinogens that can result in cell death, mutation and cancer. The protein encoded by this gene is a DNA repair protein that is involved in cellular defense against mutagenesis and toxicity from alkylating agents. The protein catalyzes transfer of methyl groups from O(6)-alkylguanine and other methylated moieties of the DNA to its own molecule, which repairs the toxic lesions. Methylation of the genes promoter has been associated with several cancer types, including colorectal cancer, lung cancer, lymphoma and glioblastoma. [provided by RefSeq, Sep 2015]

Product images:



Circular map for RG229131